What is claimed is:

1. A method of combining multiple sound signals to provide an enhanced sound output, comprising:

determining respective power levels of all or part of each of said multiple sound signals;

weighting the sound signals by applying a lesser weight to a sound signal having a higher power level and a greater weight to a sound signal having a lower power level to obtain weighted sound signals; and

combining the weighted sound signals to produce an output signal.

2. The method of Claim 1, further comprising weighting a sound signal in accordance with a ratio of signal power for that sound signal divided by a sum of signal powers for the multiple sound signals.

3. The method of Claim 1, further comprising weighting a sound signal in accordance with a ratio of noise power for that sound signal divided by a sum of noise powers for the multiple sound signals.

4. The method of Claim 1, further comprising:

splitting the sound signals into multiple bands; and

for each of multiple bands, combining multiple sound signals for that band by:

determining respective power levels of all or part of each of said multiple sound signals;

weighting the sound signals by applying a lesser weight to a sound signal having a higher power level and a greater weight to a sound signal having a lower power level to obtain weighted sound signals; and

combining the weighted sound signals to produce an output signal.

5. The method of Claim 1, further comprising:

producing multiple output signals in accordance with multiple weightings of the sound signals.

6. The method of Claim 5, wherein the multiple sound signals include a right sound signal and a left signal; the multiple output signals include a right output signal and a left output signal; and, in the right output signal, the right sound signal is weighted differently than indicated by relative powers of the right and left sound signals in accordance with a binaurality coefficient and, in the left output signal, the left sound signal is weighted differently than indicated by relative powers in accordance with a binaurality coefficient.

7. The method of Claim 6, further comprising providing separate binaurality coefficients for each of multiple frequency bands, and applying the binaurality coefficients to the sound signals on a band-by-band basis.

8. The method of Claim 1, wherein said determining, weighting and combining are performed in DSP code.

9. The method of Claim 1, wherein said determining, weighting and combining are performed in analog or switched capacitor filter circuitry.

10. The method of Claim 1, further comprising applying a noise-reduction algorithm to at least one of the multiple sound signals and the output signal.

11. A sound processing apparatus for processing multiple sound signals, comprising:

determination means for determining respective power levels of all or part of each of said multiple sound signals;

weighting means for determining a weighting of the multiple sound signals in accordance with the power within the multiple sound signals such that a lesser weight is assigned to a sound signal having a higher power level and a greater weight is assigned to a sound signal having a lower power level, and for applying the weighting to the multiple sound signals to obtain weighted sound signals; and

means for combining the weighted sound signals to obtain an output signal.

12. The apparatus of Claim 11, wherein said weighting means determines a weighting for a sound signal in accordance with a ratio of signal power for that sound signal divided by a sum of signal powers for the multiple sound signals.

13. The apparatus of Claim 11, wherein said weighting means determines a weighting for a sound signal in accordance with a ratio of noise power for that sound signal divided by a sum of noise powers for the multiple sound signals.

14. The apparatus of Claim 11, further comprising:

means for splitting the sound signals into multiple bands; and

for each of multiple bands, means for combining multiple sounds signals for that band, comprising:

determination means for determining respective power levels of all or part of each of said multiple sound signals;

weighting means for determining a weighting of the multiple sound signals in accordance with the noise power within the multiple sound signals such that a lesser weight is assigned to a noisier sound signal and a greater weight is assigned to a quieter sound signal, and for applying the weighting to the multiple sound signals to obtain weighted sound signals; and

means for combining the weighted sound signals to obtain an output signal.

15. The apparatus of Claim 14, wherein the weighting means determines multiple weightings of the sound signals, and the combining means produces multiple output signals in accordance with the multiple weightings.

16. The apparatus of Claim 15, wherein the multiple sound signals include a right sound signal and a left signal; the multiple output signals include a right output signal and a left output signal; and, in the right output signal, the right sound signal is weighted differently than indicated by relative powers of the right and left sound signals in accordance with a binaurality coefficient and, in the left output signal, the left sound signal is weighted differently than indicated by relative powers in accordance with a binaurality coefficient.

17. A method of achieving directional pickup of a radiated energy signal using a shadowing effect created by an energy propagation barrier, the method comprising:

locating a first sensor on one side of the barrier and a second sensor on an opposite side of the barrier;

adjusting amplitudes of signals produced by the first and second sensors to produce adjusted signals; and

summing together the adjusted signals to produce a directional signal.

18. The method of Claim 17, wherein the adjusted signals are of approximately equal magnitude.

19. The method of Claim 17, comprising summing together the adjusted signals to produce multiple directional signals.

20. The method of Claim 19, wherein the multiple directional signals form a binaural signal pair including a first directional signal in which energy from the first sensor is greater than energy from the second sensor, and a second

directional signal in which energy from the second sensor is greater than energy from the first sensor.

21. The method of Claim 17, further comprising:

for each of multiple frequency bands, deriving a phase correction value and applying the phase correction value within that frequency band.

22. The method of Claim 21, wherein deriving a phase correction value comprises determining within that frequency band a measure of a magnitude difference between a signal produced by the first sensor and a signal produced by the second sensor.

23. Apparatus for achieving directional pickup of a radiated energy signal using a shadowing effect created by an energy propagation barrier, the apparatus comprising:

a first sensor located on one side of the barrier and a second sensor located on an opposite side of the barrier;

means for adjusting amplitudes of signals produced by the first and second sensors to produce adjusted signals; and

means for summing together the adjusted signals to produce a directional signal.

24. The apparatus of Claim 23, wherein the adjusted signals are of approximately equal magnitude.

25. The apparatus of Claim 23, comprising means for summing together the adjusted signals to produce multiple directional signals.

26. The apparatus of Claim 25, wherein the multiple directional signals form a binaural signal pair including a first directional signal in which energy from

the first sensor is greater than energy from the second sensor, and a second directional signal in which energy from the second sensor is greater than energy from the first sensor.

27. The apparatus of Claim 23, further comprising:

means for, for each of multiple frequency bands, deriving a phase correction value and applying the phase correction value within that frequency band.

28. The apparatus of Claim 27, wherein said means for deriving a phase correction value comprises means for determining within that frequency band a measure of a magnitude difference between a signal produced by the first sensor and a signal produced by the second sensor.